

1. A circuit, comprising
a first electrically conductive element;
a second electrically conductive element; and
a nanotube ribbon disposed between the first and second electrically conductive elements, wherein the nanotube ribbon is movable toward at least one of the first and second electrically conductive elements in response to electrical stimulus applied to at least one of the first and second electrically conductive elements and the nanotube ribbon;
wherein one of the first and second electrically conductive traces includes an insulative layer on a surface facing the nanotube ribbon.
2. The circuit of claim 1, wherein the electrically conductive elements are doped silicon traces.
3. The circuit of claim 1, wherein the nanotube ribbon is of a non-woven fabric of nanotubes.
4. The circuit element of claim 1, wherein the nanotube ribbon is substantially a monolayer of nanotubes.
5. A circuit array, comprising
a first structure having a plurality of electrically conductive elements and a plurality of support structures;
a second structure having a plurality of electrically conductive elements and a plurality of support structures; and
a plurality of nanotube ribbons disposed between the first and second structures and in contact, each nanotube ribbon crossing in spaced relation corresponding electrically conductive elements of the first and second structures and thereby defining a corresponding circuit cell, and wherein a nanotube ribbon is movable within a circuit cell in response to electrical

stimulus applied to at least one of the electrically conductive elements and the nanotube ribbons; and

wherein electrically conductive elements of at least one of the first and second structures includes an insulative layer on a surface facing a corresponding nanotube ribbon.

6. The circuit array of claim 5 wherein the first support structure is vertically aligned with the second support structure.
7. The circuit array of claim 7 wherein the electrically conductive elements of the first structure are vertically aligned with the electrically conductive elements of the second structure.
8. The circuit array of claim 5 wherein the first support structure is vertically unaligned with the second support structure.
9. The circuit array of claim 5 wherein the electrically conductive elements of the first structure are disposed between corresponding support structures of the first structure and wherein the electrically conductive elements of the second structure have at least a portion of their widths disposed over support structures of the second structure and at least a different portion of their widths protruding past the support structures of the second structure.
10. The circuit array of claim 5, wherein the support structures of the second structure are made of insulating material.
11. The circuit array of claim 5, wherein the support structures of the first structure are made of insulating material.

12. The circuit array of claim 5 wherein the second structure includes a gate dielectric layer.
13. The circuit array of claim 5 wherein the first structure includes a gate dielectric layer.
14. The circuit array of claim 5 wherein the support structures of at least one of the first and second structures are made of spin-on glass.
15. The circuit array of claim 5 wherein the support structures of at least one of the first and second structures are made of silicon nitride.
16. The circuit array of claim 5 wherein the support structures of at least one of the first and second structures are made of polyimide.
17. A circuit, comprising
a first electrically conductive element;
a second electrically conductive element; and
an electromechanically responsive element disposed between the first and second electrically conductive elements, wherein the nanotube ribbon is movable toward at least one of the first and second electrically conductive elements in response to electrical stimulus applied to at least one of the first and second electrically conductive elements and the nanotube ribbon; and
wherein one of the first and second electrically conductive elements includes an insulative layer on a surface facing the electromechanically responsive element.
18. The circuit of claim 17 wherein the electromechanically responsive element is a nanotube.

19. The circuit of claim 17 wherein the electromechanically responsive element is a ribbon of nanotube material.

20. A method of using a circuit cell having a first electrically conductive element, a second electrically conductive element, and a nanotube ribbon disposed between the first and second electrically conductive elements, comprising:

applying electrical stimulus to one of the first and second electrically conductive elements and to the nanotube ribbon to move the nanotube ribbon toward at least one of the first and second electrically conductive elements;

sensing electrical signals from at least one the first and second electrically conductive elements and the nanotube ribbon to determine the electrical state of the cell; and

applying electrical stimulus to the other of the first and second electrically conductive elements and to the nanotube ribbon to move the nanotube ribbon away from the one of the first and second electrically conductive elements which it was moved toward.

21. The method of claim 20 wherein, if the ribbon is moved toward the first electrically conductive element, the electrical state is a first state; if the ribbon is moved toward the second electrically conductive element, the electrical state is a second state; and if the ribbon is between the first and second electrically conductive elements, the electrical state is also in a second state.